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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,776	02/11/2002	Richard J. Manzolari	D/A0A46 (1508/3530)	2022
7590 01/13/2006			EXAMINER	
Gunnar G. Leinberg, Esq. Nixon Peabody LLP Clinton Square P.O. Box 31051 Rochester, NY 14603-1051			STEELMAN, MARY J	
			ART UNIT	PAPER NUMBER
			2191	
DATE MAILED: 01/13/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/072,776	Applicant(s) MANZOLATI, RICHARD J.	
	Examiner Mary J. Steelman	Art Unit 2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office Action is in response to Amendment and Remarks received 19 December 2005. The prior Final Office action is hereby withdrawn. Per Applicant's request, claims 1, 8, and 15 are amended. New claims 25-27 are added. Claims 1-27 are pending.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,473,036 B2 to Proctor, Jr.

Per claims 1 and 8:

-obtaining, from an information component of at least one part of an apparatus, information about the at least one part of the apparatus, said information component comprising memory and a processor;

(See Fig. 2, #130, #140 (information component with processor and memory stores data about antenna / part of apparatus). Col. 4, lines 19-21, "The invention provides a mechanism and

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method for efficiently configuring the antenna apparatus to maximize the effective radiated and/or received energy.” Col. 9, lines 23-26, controller (processor), #140 with memory.)

-determining instructions for optimizing at least one operation of the at least one part of the apparatus based on the obtained information;

(Information is obtained from monitoring a response to a pilot signal (col. 4, lines 42-45). The information is used to optimize the operation of the part of the apparatus based on the obtained information by applying instructions. Col. 4, lines 52-55, “Through the use of an array of antenna elements, each having a programmable weight control component for forming the antenna beam as desired, the antenna apparatus increases the effective transmit power per bit transmitted.” Col. 7, lines 38-43, initial optimization and lines 48-54 & 60-61, secondary optimization.)

-applying the instructions to the information component for execution by the processor.

(Col. 8, lines 39-42 & 58-64, Individual weights are set (apply instruction to information component for execution) by control components #111-#115.

Per claim 15:

An apparatus comprising:

-one or more parts;

(FIG. 2 – shows multiple parts.)

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-an information component for at least one of the part, the information component comprising memory and a processor, said memory having stored therein data about the at least one part; (Fig. 2, #130 & #140. Col. 9, lines 23-26, “The control signal input to each of the weight control components 111 through 115 for changing the weights to scan the antenna beam can be read from memory locations within the controller 140 (controller/processor with memory).”)

-an optimization processing system that determines instructions for optimizing at least one operation of the at least one part of the apparatus based on data obtained from the at least one part and applies the instructions to the information component for execution by the processor to optimize the performance of the apparatus.

(Col. 9, lines 15-57- A two step process is described to optimize at least one part of the apparatus (antenna) based on data obtained from at least one part. Col. 9, lines 31-32, “At each beam location the response of the receiver 130 to the pilot signal is determined.”)

Per claims 2, 9, and 16:

-identifying the at least one operation of the apparatus being optimized.

(Col. 4, lines 42-46, “The proper adjustment of the weight control components in the independent mode can, for example, be determined by monitoring an optimum response to a pilot signal transmitted...”)

Per claim 3, 10, and 17:

-interrogating the at least one part for the information.

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(Col. 8, lines 46-54, “the controller 140 determines these optimum weights during idle periods... a received signal... received at each antenna element 101 through 105 serves as the basis for adjusting the weight control components 111 through 115...”)

Per claims 4, 11, and 18:

-determining if any other parts need to be interrogated;

(Col. 10, lines 7-10, “can be applied to a plurality of cooperating antenna elements...”)

-interrogating the other parts which are needed for the obtained information.

(Col. 8, lines 58-64, “The controller 140 thus determines and sets an optimal weight for each weight control component 111 through 115...” Also, see rejection of claims 3 and 4 above.

Multiple parts are interrogated for information.)

Per claims 5, 12, and 19:

-obtained information for the at least one of the part comprises at least one functional parameter of the at least one part.

(Col. 9, line 45-‘receiver metrics’)

Per claims 6, 13, and 20:

-obtained information for the at least one of the part comprises at least one algorithm of the at least one part.

(FIGs. 4 & 5, Col. 5, lines 34-40, algorithms to optimally determine the arrangement of antenna elements, computing the weights.)

Per claims 7, 14, and 21:

-comparing the obtained information about the at least one part against stored information about the at least one part to obtain a difference;

(Col. 9, lines 15-32 & 50-57-describes a two step process to optimally adjust weights. Initial weights are stored and a difference is applied in the second step.)

-using the difference to determine the instructions for optimizing the at least one operation of the apparatus.

(Col. 9, lines 50-57, The difference calculated is used to optimize by fine tuning the weights of the antenna (optimize one operation of the apparatus).)

Per claims 22, 23, and 24:

-transmitting, to the at least one part, the instructions for optimizing the at least one operation of the at least one part of the apparatus;

(Col. 9, lines 15-57, disclosed process to determine and apply optimal weights. Col. 8, lines 58-64-The controller 140 determines and sets (transmits instructions for optimizing) an optimal weight for each weight control component 111 through 115..."")

-executing the instructions with a processor of the at least one part to optimize the at least one operation of the apparatus.

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(Col. 9, lines 23-26, "The control signal input to each of the weight control components 111 through 115 for changing the weights...can be read from memory locations within the controller 140." The controller executes the instructions with a processor to optimize the at least one operation of the apparatus.)

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new grounds of rejection.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (571) 272-3704. The examiner can normally be reached Monday through Thursday, from 7:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached at (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Steelman

A handwritten signature in cursive script, appearing to read "Mary Steelman".

01/04/2006